

<p align="center"><b>APPENDIX 16 – THERMOMETERS AND OVENS</b></p>	<p align="center">Page 1 of 1</p>
<p align="center"><b>Division of Forensic Science</b></p> <p align="center"><b>TRACE EVIDENCE PROCEDURES MANUAL</b></p>	<p>Amendment Designator:    <b>A</b></p>
	<p>Effective Date:    14-June-2005</p>
<p align="center"><b>16 THERMOMETERS AND OVENS</b></p> <p><b>A.</b> The check of the calibration of thermometers used in dynamic adsorption/elution fire debris extractions (charcoal tube) will be performed as needed prior to use with casework. This calibration check will be valid for any additional charcoal tube extractions conducted within a period of 30 days. Each of these thermometers will have its own identifying number or letter designation.</p> <p><b>B.</b> The thermometers will be checked using a NIST traceable thermometer. The thermometer log sheets (Appendix 19) will be used to record the temperature values, the identity of the NIST traceable thermometer and if the thermometer has been taken out of service.</p> <p>    a. Suspend the thermometers approximately four inches into boiling water. Record the actual temperature observed on the log sheet in the space designated “Actual Temp.” The thermometer must read 100°C +/- 5°C. Place a check mark in the “√ okay” box if the thermometer falls within the acceptable range. If the thermometer is not within this range, the thermometer will be taken out of service and this will be noted in the comments section of the form.</p> <p>    b. The actual temperature determined for each thermometer will be the temperature used to perform charcoal tube extractions. For example, in 100°C water, thermometer #1 reads 96°C. About 96°C is the temperature that this thermometer should read during use for charcoal tube extractions. If the actual temperature reading is recorded on the thermometer, a permanent Sharpie® may be used. To remove the markings, use only methanol as chloroform or acetone will mar the face of the thermometer.</p> <p><b>C.</b> The temperature of ovens used in passive adsorption/elution fire debris extractions (charcoal strip) will be checked prior to use with casework and the value recorded on a log sheet (Appendix 19) kept with the ovens.</p> <p>    a. Each oven should have its own external thermometer. The oven temperature should read 75°C ± 2.0 °C. If the temperature does not read as specified, then the thermostat will be adjusted to obtain the correct temperature. The oven temperature will be re-read and this value recorded. If the correct temperature cannot be achieved, the oven will be removed from service until it can be repaired.</p> <p>        i. The thermometers used for the temperature check will be NIST traceable and their certificates stored with the oven log.</p> <p>    b. Any maintenance or repair will be documented on the log sheet kept with the ovens.</p> <p align="right">◆End</p>	